

Homework 7.3

What is the domain and range of the relation shown in the table provided? Determine if the relation is a function.

1.

x	y
-1	5
1	-2
3	2
5	6

Domain:

Range:

Function?

2.

x	y
5	3
4	-1
2	7
4	8

Domain:

Range:

Function?

3.

x	y
-3	6
-1	7
3	3
8	1

Domain:

Range:

Function?

Determine which set of ordered pairs represent a function.

4. $\{(4, 7), (2, 7), (6, 2), (7, 1)\}$

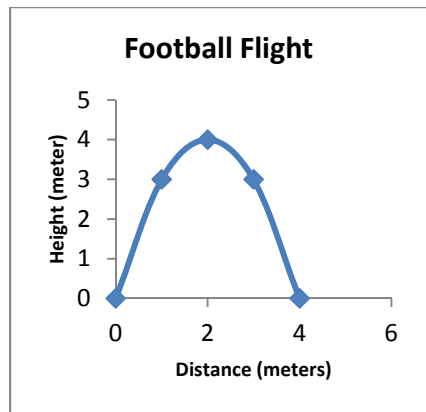
5. $\{(3, 6), (1, 8), (9, 4), (9, -1)\}$

6. $\{(-2, 1), (5, 9), (-1, 7), (5, 11)\}$

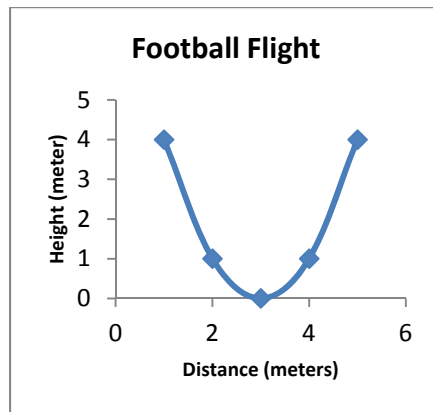
7. $\{(2, 16), (3, 4), (5, 4), (10, 7)\}$

8. Pete threw a football into the air. Which graph best represents the path of the football as it travels through the air?

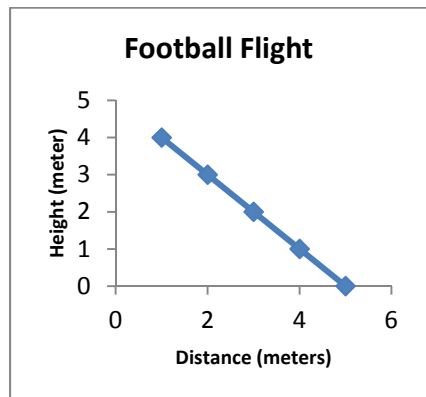
A.



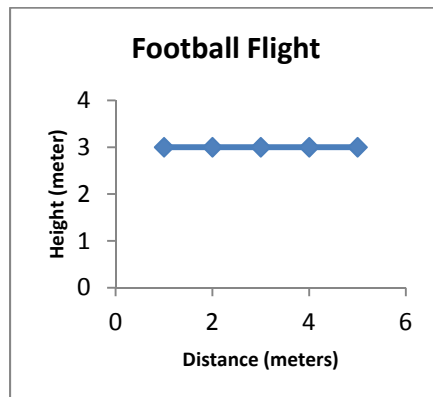
B.



C.

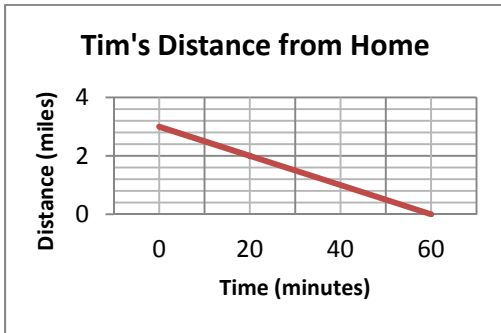


D.

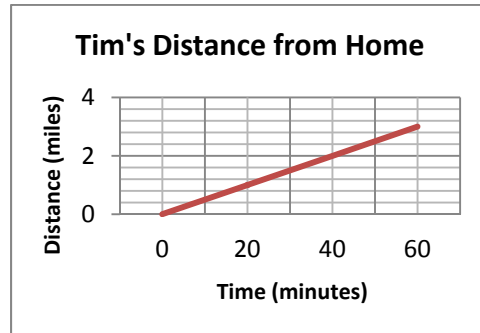


9. Tim rode his bike from home to school at a constant speed. Tim rode his bike along a straight path to school. Which graph best represents Tim's distance from his home over time?

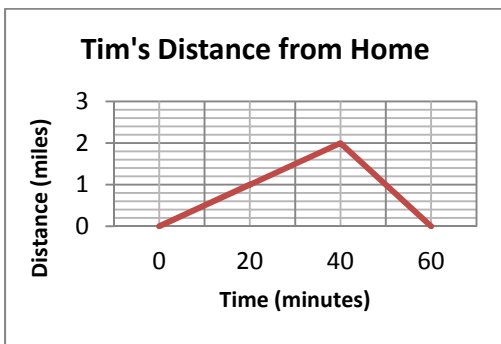
A.



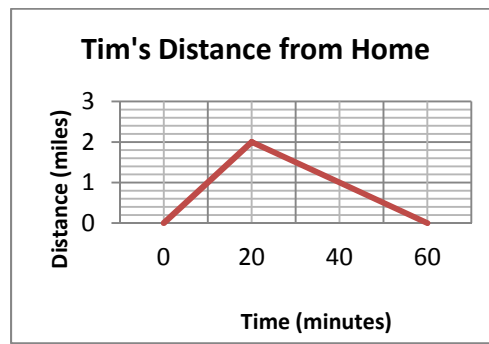
B.



C.



D.



In each of the following problems, a linear equation has been solved incorrectly. You need to determine where the mistake was made and then solve the equation for the correct answer.

10. $3x - 9 = 2(x - 12) - 2x$

$$3x - 9 = 2x - 24 - 2x$$

$$3x - 9 = -24$$

$$3x = -33$$

$$x = -11$$

11. $7 - 2x = 7(8 - x) - 2x$

$$7 - 2x = 56 - x - 2x$$

$$7 - 2x = 56 - 3x$$

$$7 + x = 56$$

$$x = 49$$

Answers:

1. Domain: $\{-1, 1, 3, 5\}$

Range: $\{5, -2, 2, 6\}$

Function? yes

2. Domain: $\{5, 2, 4\}$

Range: $\{3, -1, 7, 8\}$

Function? no

3. Domain: $\{-3, -1, 3, 8\}$

Range: $\{6, 7, 3, 1\}$

Function? Yes

4. Function

5. Not a Function

6. Not a Function

7. Function

8. A.

9. B

10. Subtracted 9 from both sides incorrectly, -5

11. Distributed incorrectly, 7